

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A process for manufacturing a particulate titanium dioxide product, comprising:

providing wherein hydrated titanium dioxide is precipitated from an aqueous solution of titanium oxychloride having a content of >90 g TiO_2/l calculated as TiO_2 ;
[[by]]

adding titanium dioxide particles as crystal nuclei to the aqueous solution of titanium oxychloride;

precipitating hydrated titanium dioxide particles as crystal nuclei and the product obtained from the precipitation step is isolated and optionally calcined, characterized in that the crystal nuclei are added to an aqueous solution of titanium oxychloride having a content of >90 g TiO_2/l calculated as TiO_2 , and that the precipitation is carried out at a temperature of 50 to 100°C , the temperature being below the boiling point of the said aqueous solution of titanium oxychloride and at normal pressure to obtain a precipitated hydrated titanium dioxide product;

calcining the precipitated hydrated titanium dioxide product at a temperature of 100 to 500°C to obtain a titanium dioxide product is comprised of more than 70% rutile in a crystal form.

2. (Previously Presented) The process according to claim 1, wherein ~~characterized in that~~ the content of the aqueous solution of titanium oxychloride is 95 ~~to~~ [[-]] 300 grams, preferably 100-250, for example 150-230, g of TiO_2 ~~in one~~ per litre of aqueous solution.

3. (Previously Presented) The process of according to claim 1, wherein ~~characterized in that~~ the titanium dioxide particles are added in an amount of ~~at 0,5~~ 0.5 ~~to~~ [[-]] 10% by weight, ~~1-7% by weight, preferably 1,5-5% by weight, more preferably 2-5% by weight,~~ calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

4. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein the titanium dioxide particles are added as a suspension, ~~preferably as an aqueous suspension, and the content of suspension with respect of TiO_2 is~~ having an amount of 5 ~~[[-]]~~ to 100 g/l of TiO_2 , ~~10-80 g/l, preferably 10-50 g/l.~~

5. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein the average particle size of the titanium dioxide particles ~~to be added~~ is from 1 ~~[[-]]~~ to 15 nm, ~~preferably 5-15 nm.~~

6. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein the titanium dioxide particles ~~to be added~~ are of the a rutile and/or anatase crystal form, ~~preferably more than 20% in rutile.~~

7. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein the precipitation step is carried out at a temperature, ~~which is between from 50~~ 100°C, ~~preferably between 60°C to~~ and below 100°C, ~~more preferably between 70-98°C.~~

8. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein ~~following the separation~~ the precipitated titanium dioxide product is washed and neutralized with a base to a pH range in a range of from 6[[-]] to 10, ~~more preferably to a pH range of 7-9.~~

9. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein the calcination is performed at a temperature in a range of from 150 to 400°C ~~below 700. °C, preferably at 100-500°C more preferably at 150-400°C.~~

10. (Previously Presented) The process according to claim 1, ~~characterized in that~~ wherein ~~by using the process a titanium dioxide product with~~ comprises crystals having an average diameter of less than 50 nm, ~~preferably 5-30 nm, still most preferably 5-20 nm, is prepared.~~

11. (Currently Amended) The process according to claim 1, ~~characterized in that~~ wherein [[a]] the titanium dioxide product with has a specific surface area in the range of from 10[[-]] to 500 m²/g, ~~most preferably 10-300 m²/g g/m²,~~ ~~is prepared by using the process.~~

12. (Previously Presented) The process according to claim 1, ~~characterized in that~~
wherein the titanium dioxide product is comprised of more than 80% rutile in a crystal
form, having a crystal form of predominantly rutile, preferably more than 70%, more
preferably more than 80%, still more preferably more than 90%, in rutile.

13. (Previously Presented) The process according to claim 1, ~~characterized in that~~
wherein an amount of sulphate in the range of 1 to 5 % into the aqueous solution of the
titanium oxychloride to be precipitated there is added an amount of sulphate, which is 1-
5% by weight, calculated on the basis of the amount of TiO_2 in the solution, is added
into the aqueous solution of titanium oxychloride which sulphate is preferably in the form
of an acid or a salt.

14. (Previously Presented) The process according to claim 1, for the production of a
photocatalytically active titanium dioxide product.

15. (Original) A process according to claim 14, wherein the ~~characterized in that a~~
~~titanium dioxide product is prepared, having~~ has activity in the UV region of light.

16. (Original) A process according to claim 15, wherein the ~~characterized in that a~~
~~titanium dioxide product is prepared, having~~ has activity in the a visible region of light.

17. (Previously Presented) The process according to claim 1, wherein the [[A]] titanium dioxide product, preferably is a photocatalytically active titanium dioxide product, which is obtainable by a process according to claim 1.

18-20. (Cancelled)

21. (Previously Presented) A photocatalyst, which comprises [[a]] titanium dioxide product prepared by a process according to claim 1.

22. (Previously Presented) A product, which has a surface coated at least in part with a photocatalyst coating, which comprises[[a]] the titanium dioxide product prepared by [[a]] the process according to claim 1.

23-25. (Cancelled)

26. (New) The process according to claim 1, wherein the content of the aqueous solution of titanium oxychloride is 100 to 250 grams of TiO_2 per litre of aqueous solution.

27. (New) The process according to claim 1, wherein the content of the aqueous solution of titanium oxychloride is 150 to 230 grams of TiO_2 per litre of aqueous solution.

28. (New) The process of according to claim 1, wherein the titanium dioxide particles are added in amount of 1 to 7% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

29. (New) The process of according to claim 1, wherein the titanium dioxide particles are added in an amount 1.5 to 5% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

30. (New) The process of according to claim 1, wherein the titanium dioxide particles are added at 2 to 5% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

31. (New) The process according to claim 1, wherein the titanium dioxide particles are added as a suspension having an amount of 10 to 80 g/l of TiO_2 .

32. (New) The process according to claim 1, wherein the titanium dioxide particles are added as a suspension having an amount of 10 to 50 g/l of TiO_2 .

33. (New) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 100 g/l of TiO_2 .

34. (New) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 80 g/l of TiO_2 .

35. (New) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 50 g/l of TiO_2 .

36. (New) The process according to claim 1, wherein the average particle size of the titanium dioxide particles is from 5 to 15 nm.

37. (New) The process according to claim 1, wherein more than 20% of the titanium dioxide are in rutile form.

38. (New) The process according to claim 1, wherein the precipitation step is carried out at a temperature between from 70 to 98°C.

39. (New) The process according to claim 1, wherein the precipitated titanium dioxide product is washed and neutralized with a base to a pH in a range of from 7 to 9.

40. (New) The process according to claim 1, wherein the titanium dioxide product comprises crystals having an average diameter in a range of from 5 to 30 nm.

41. (New) The process according to claim 1, wherein the titanium dioxide product comprises crystals having an average diameter in a range of from 5 to 20 nm.

42. (New) The process according to claim 1, wherein the titanium dioxide product has a specific surface area in the range of from 10 to 300 m^2/g .

43. (New) The process according to claim 1, wherein the titanium dioxide product is comprised of more than 90 % rutile in a crystal form.

44. (New) The process according to claim 13, wherein the sulphate is ~~in the form of an~~ acid or a salt.